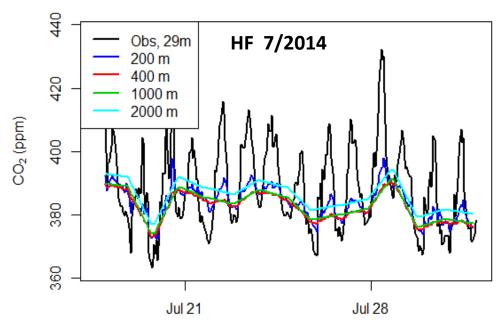
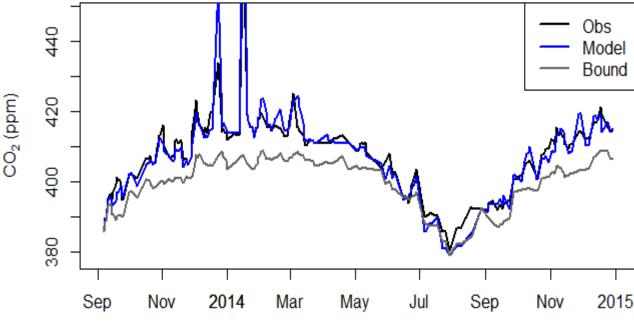
## Anthropogenic and biogenic CO<sub>2</sub> fluxes in the Boston urban region

Maryann Sargent<sup>a,1</sup>, Yanina Barrera<sup>a</sup>, Thomas Nehrkorn<sup>b</sup>, Lucy R. Hutyra<sup>c</sup>, Conor K. Gately<sup>a,c</sup>, Taylor Jones<sup>a</sup>, Kathryn McKain<sup>d</sup>, Colm Sweeney<sup>d</sup>, Jennifer Hegarty<sup>b</sup>, Brady Hardiman<sup>c,e</sup>, and Steven C. Wofsy<sup>a</sup>



Height-resolved background CO<sub>2</sub> concentration curtain from tower measurements and Carbon Tracker, adjusting for surface layer fluxes and vertical gradients.

Seasonal prior and optimized anthropogenic CO<sub>2</sub> emissions for September 2013 to December 2014 based on the NAM-HYSPLIT model for the average of the BU and COP sites. Model-measurement framework capable of detecting changes in emissions of greater than 18%



Afternoon CO<sub>2</sub> concentrations (7-day running average) in Boston at 215 m (blue, model; black, observed), and inflow/background values (grey).

